

IRAS RESULTS ON OUTER GALAXY STAR FORMATION

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We have systematically studied an infrared defined ($60\ \mu\text{m}$) sample of IRAS sources in order to investigate star formation in the outer Galaxy. Five percent of the sample are point sources with IRAS spectra that suggest the emission is from a dust shell surrounding a mature star. Ninety-five percent have spectra where flux density strictly rises with wavelength. The sources are extended, and we show that Point Source Catalog fluxes seriously underestimate total fluxes. We have reliably assigned CO kinematic distances to two thirds of the sources. Most of the infrared luminosities correspond to B spectral types. We detect 6 cm continuum emission from all sources inferred to have spectral type B1 or earlier. The combined IRAS/CO/6 cm data show these sources are young, moderately massive stars that are embedded in interstellar clouds. The young embedded sources define a distinct band in an IRAS color-color diagram. Normal IRAS galaxies fall in the same band, consistent with the interpretation that their infrared emission is due to star formation.